

Title (en)
HEAT PUMP DEVICE

Title (de)
WÄRMEPUMPENVORRICHTUNG

Title (fr)
DISPOSITIF DE POMPE À CHALEUR

Publication
EP 2437007 A1 20120404 (EN)

Application
EP 10780358 A 20100330

Priority
• JP 2010055686 W 20100330
• JP 2009059622 W 20090526

Abstract (en)
To provide a heat pump apparatus, such as a heat pump water heating apparatus, capable of efficiently supplying high-temperature water by increasing a condensation capacity to a maximum if the outside air temperature is low. The heat pump water heating apparatus is configured to include a first refrigeration cycle and a second refrigeration cycle. The first refrigeration cycle is configured to connect in series a main compressor 1, a first water-refrigerant heat exchanger 2, an internal heat exchanger 3, a first pressure reducing device 4, and an air heat exchanger 5. The second refrigeration cycle diverges from the first refrigeration cycle between the first water-refrigerant heat exchanger 2 and the first pressure reducing device 4, and joins the first refrigeration cycle between the main compressor 1 and the first water-refrigerant heat exchanger 2. The second refrigeration cycle is configured to connect in series a second pressure reducing device 8, an internal heat exchanger 3, a sub compressor 9, and a third pressure reducing device 12.

IPC 8 full level
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